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Abstract

EM material characterization at microwave frequencies has a long history, dating from early 1940s. Over the past few decades, significant advances have been made in this field and a variety of new measurement techniques have been developed. Broadband EM material characterization is a major requirement in many applications. In this scenario, coaxial line methods have gained much importance as compared to other methods. In this report, a review has been conducted to study the coaxial line methods for EM material characterization. It includes detailed description of coaxial waveguide methods, coaxial airline methods, coaxial line reflection methods and open-ended coaxial line methods.